UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,154	12/19/2003	David S. Benco	LUC-459/Benco 56-7	6000

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CARMEN B. PATTI & ASSOCIATES, LLC		CASCA, FRED A
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CHICAGO, IL 60602		2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on <u>12 October 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>13,14 and 16-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>13,14 and 16-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to applicant's amendment filed on 10/12/2006. Claims 13, 14,

16-19 are still pending in the present application. **This Action is made FINAL.**

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 13,14 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bakke et al (US Patent No. 6,704,812 B2) in view of Kitchin (US Pub. No. 2002/0154656 A1).

        Referring to claim 13, Bakke discloses a method for interfacing a data capable mobile

phone to at least one peripheral device (figure 1, col. 6, lines 20-55 and col. 8, lines 19-35),

comprising:

providing a internal bus in the mobile phone (figures 1-2, col. 6, lines 20-35, "internal bus 105");

providing a peripheral hub having an input that is an I/O port and at least one output that is an

I/O port (figures 1-2, col. 6, lines 60-67, "connected to a myriad of external or peripheral devices

either through a connection hub 130"); operatively connecting the internal bus to the input of the

peripheral hub (figures 1-2, col. 6, lines 60-67, "connected to a myriad of external or peripheral

devices either through a connection hub 130"); providing an I/O interface device controller

respectively for each I/O port in the peripheral hub (figures 1-2, and col. 6, lines 19-67, col. 7,

lines 13-67, col. 9, lines 20-65, "device control logic 224, 234 to control and reset each device

230, 240, 250", "connected to a myriad of external or peripheral devices either through a

connection hub 130", "Operating system 122 provides . . . device drivers for interfaces", note

that the mobile device is connected to multiple peripheral devices with device drivers through a

multi I/O hub, hence it is inherent that an I/O interface device controller is provided so that data

is transmitted to the appropriate peripheral device and data transmittal to multiple peripheral

devices is controlled without losing or misdirecting data); operatively connecting at least one

peripheral device to the at least one output of the peripheral hub figures 1-2, and col. 6, lines 19-

67, col. 7, lines 13-67, col. 9, lines 20-65, "connected to a myriad of external or peripheral

devices either through a connection hub 130", "connect a wide variety of devices to the host");

recognizing, by the peripheral hub, peripheral devices connected lo the peripheral hub;

separating peripheral interfaces from the internal bus of the mobile phone and making respective

peripheral interfaces available on respective peripheral device outputs of the peripheral hub

(figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, col. 9, lines 20-65, "device control logic

224, 234 to control and reset each device 230, 240, 250", "connected to a myriad of external or

peripheral devices either through a connection hub 130", "processor complex 104 connected to a

main memory 120 by an internal bus", "Operating system 122 provides . . . device drivers for

interfaces", note that mobile device is connected to multiple I/O peripheral devices and device

drives are provided for each peripheral device by the OS, thus it is inherent that the data interface

with the multiple I/O devices are controlled so that appropriate data communication is taken

place and . Hence, recognizing by the peripheral hub is provided to recognize connectivity to the

peripheral hub, and separating peripheral interfaces from internal bus and making respective

peripheral interfaces available on respective peripheral device outputs of the peripheral hub, so

that communication takes place through/with the desired peripheral devices); interworking with

the internal bus of the mobile phone to exchange data and control information with a CPU of the

mobile phone (figure 1-2 and col. 6, lines 20-65); and directing control and data from the

internal bus of the mobile phone to a corresponding interface device controller for a respective

peripheral device (figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, col. 9, lines 20-65,

"device control logic 224, 234 to control and reset each device 230, 240, 250", "connected to a

myriad of external or peripheral devices either through a connection hub 130", "Operating

system 122 provides . . . device drivers for interfaces", note that the mobile device is connected

to multiple peripheral devices with device drivers through a multi I/O hub, hence it is inherent

that an I/O interface device controller is provided for directing control and data from the internal

bus of the mobile phone to a corresponding interface device controller for a respective peripheral device)....

Bakke does not specifically disclose **storing drivers in the peripheral hub <u>for</u> peripheral devices and installing the drivers for <u>the</u> peripheral devices connected to the peripheral hub.**

Kitchin discloses storing drivers in the peripheral hub <u>for peripheral devices</u> and installing the drivers for <u>the</u> peripheral devices connected to the peripheral hub (figure 2 and paragraphs 21-26, "device driver 296 installed on the wireless network hub 30", "device drivers 290 . . . may be stored in the storage unit 270", "hub 30 . . . includes a control unit . . . storage unit . . . wireless network interface 280 having a transceiver 282 and an antenna . . . hub 30 includes a network protocol 286 and device driver 290 for the wireless network interface", note hub 30 includes a network protocol and device driver 290 for the wireless network interface with peripheral devices, hence drives stored in the hub are inherently for the peripheral devices).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Bakke by incorporating the teachings of Kitchin and consequently providing the method of Bakke with storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub, motivation being for the purpose of increasing memory space for the internal memory system of the mobile device since drivers are stored in the peripheral hub, providing a more robust interface hub, and/or providing a mobile hub that is easily moved and connected to other mobile phones.

Referring to claim 14, the combination of Bakke/Kitchin disclose the method according to claim 13, and further disclose the peripheral hub has a plurality of peripheral device outputs, and a respective peripheral device output of the plurality of peripheral device outputs is one of ; DB25 parallel port connector, HD15 connector, six pin mini DIN (PS/2) connector, IEEE 1394 six pin connector, IEEE 1394 four pin connector, USB-A connector, and USB-B connector (Bakke, col. 7, lines 48-67).

Referring to claim 16, the combination of Bakke/Kitchin disclose the method according to claim-13, and further disclose a plurality of peripheral devices are operatively connected to the peripheral hub, wherein a respective peripheral device of the plurality of peripheral devices is one of: mouse, trackball, monitor, keyboard, printer, scanner, digital camera, storage device, digital video camera, joystick, speaker, audio system, video display device, and microphone (Bakke, col. 6, lines 53-67).

Referring to claim 17, the combination of Bakke discloses a system for interfacing to peripheral devices (figure 1-2, col. 6, lines 20-55 and col. 8, lines 19-35), comprising a data capable mobile phone having an internal bus (figures 1-2, and col. 6, lines 20-35, "internal bus 105"); a peripheral hub operatively connected to the internal bus, the peripheral hub having I/O ports, a plurality of peripheral devices operatively connected to the I/O ports of the peripheral hub (figures 1-2 and col. 6, lines 60-67, "connected to a myriad of external or peripheral devices either through a connection hub 130"); the peripheral hub having:
an input operatively connectable to the internal bus of the mobile phone, peripheral device outputs that are the I/O ports (figure 1-2 and col. 6, lines 60-67, "connected to a myriad of external or peripheral devices either through a connection hub 130"); and a functionality module having I/O interface device controllers for the I/O ports operatively connected to the input and respectively to the peripheral device outputs (figures 1-2, col. 6, lines 35-67, and col. 7, lines 35-65 "connected to a myriad of external or peripheral devices either through a connection hub 130", "Operating system 122 provides.... device drivers for interfaces", note that the mobile device is connected to multiple peripheral devices with device drivers through a multi I/O hub, hence it is inherent that a functionality module having I/O interface device controllers for I/O ports is provided so that data is transmitted to the appropriate peripheral device and data transmittal to multiple peripheral devices is controlled without losing or misdirecting data), functionality module separating peripheral interfaces from the internal bus of the mobile phone and making respective peripheral interfaces available on respective peripheral device outputs of the peripheral hub, and the functionality module having functionality to recognize peripheral devices connected to the peripheral hub (figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67,

col. 9, lines 20-65, "device control logic 224, 234 to control and reset each device 230, 240, 250", "connected to a myriad of external or peripheral devices either through a connection hub 130", "processor complex 104 connected to a main memory 120 by an internal bus", "Operating system 122 provides . . . device drivers for interfaces", note that mobile device is connected to multiple I/O peripheral devices and device drives are provided for each peripheral device by the OS, thus it is inherent that the data interface with the multiple I/O devices are controlled so that appropriate data communication is taken place and . Hence, functionality module is provided to separate peripheral interfaces from the internal bus of the mobile phone and making respective peripheral interfaces available on respective peripheral device outputs of the peripheral hub, and recognize peripheral devices connected to the peripheral hub, so that communication takes place through/with the desired peripheral devices).

Bakke does not specifically disclose **store and install drivers for the peripheral devices operatively connected to the peripheral hub, and the peripheral hub having a storage unit in which are stored device drivers for the peripheral devices connected to the peripheral hub.**

Kitchin discloses store and install drivers for the peripheral devices operatively connected to the peripheral hub, and the peripheral hub having a storage unit in which are stored device drivers for the peripheral devices connected to the peripheral hub (figure 2 and paragraphs 21-26, "device driver 296 installed on the wireless network hub 30", "device drivers 290 . . . may be stored in the storage unit 270", "device drivers 290 . . . may be stored in the storage unit 270", "hub 30 . . . includes a control unit . . . storage unit . . . wireless network interface 280 having a transceiver 282 and an antenna . . . hub 30 includes a network protocol 286 and device driver 290 for the wireless network interface", note hub 30 includes a network protocol and device driver 290 for the wireless network interface with peripheral devices, hence drives stored in the hub are inherently for the peripheral devices).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Bakke by incorporating the teachings of Kitchin and consequently providing the method of Bakke to store and install drivers for the peripheral devices operatively

connected to the peripheral hub, motivation being for the purpose of increasing memory space for the internal memory system of the mobile device since drivers are stored in the peripheral hub, providing a more robust interface hub, and/or providing a mobile hub that is easily moved and connected to other mobile phones.

Referring to claim 18, the combination of Bakke/Kitchin disclose the system according to claim 17, and further disclose a respective peripheral device output of the plurality of peripheral device outputs is one of; DB25 parallel port connector, HD15 connector, six pin mini DIN (PS/2) connector, IEEE 1394 six pin connector, IEEE 1394 four pin connector, USB-A connector, and USB-B connector (Bakke, col. 7, lines 52-67).

Referring to claim 19, the combination of Bakke/Kitchin disclose the system according to claim 17, and further disclose the system further comprises an interface cable having a first end releasably connectable to the bus connector and a second end operatively connected to the input of the peripheral hub (Bakke, figures 1, and col. 7, lines 50-67, note that a connection is disclosed between bus 115 and hub 130, and further the connection is releasable).

Response to Arguments

4.   Applicant's arguments filed October 12th, 2006 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392,

170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references,

the examiner recognizes that obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir.

1992). In this case, Bakke et al (US 6,704,812 B2) teaches a method of interfacing a data

capable mobile phone to a peripheral device comprising an internal bus, peripheral hub with

input and output ports, and other elements of independent claims 13 and 17. Kitchin (US

2002/0154656 A1) teaches concepts of wireless network hub for interfacing in a wireless

network environment. Additionally, Kitchin cures the deficiency of Bakke in independent

claims 13 and 17 and discloses the concepts of "storing drivers in the peripheral hub for

peripheral devices and installing the drivers for the peripheral devices connected to the

peripheral hub" which are well-known concepts in the art of Electrical and Computer

Engineering (please see the rejections of claims 13 and 17 for more details).

Furthermore, applicant's arguments with respect to claims and 13 and 17 have been

considered but are moot in view of new ground(s) of rejection.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (US 2005/0015536 A1) discloses peripheral devices in wireless communication.

Meza (US 2004/0073912 A1) discloses device drivers for communicating with peripheral devices in a wireless network.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid, can be reached at (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER